

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

6 HORUS VISION, LLC,  
Plaintiff,

7 v.

8 APPLIED BALLISTICS, LLC, et al.,  
Defendants.

Case No. 13-cv-05460-BLF

## ORDER CONSTRUING CLAIM TERMS OF US PATENT NO 7,937,878

[Re: ECF 43]

11 Plaintiff Horus Vision brings this patent infringement lawsuit against Defendant Applied  
12 Ballistics, alleging infringement of Horus Vision's US Patent No 7,937,878: Apparatus and Method  
13 for Calculating Aiming Point Information. The court held a hearing on October 20, 2014, for the  
14 purpose of construing nine disputed terms in the claims of the '878 Patent.<sup>1</sup>

## 1. BACKGROUND

16 The '878 Patent claims a method for shooting a target. In particular, it deals with the problem  
17 that, when shooting a target at long range, many factors affect the course of the bullet between its  
18 leaving the barrel of the firearm and its reaching its destination. These factors and their interactions  
19 are complex enough that often a computer is needed to accurately predict the precise trajectory of a

<sup>21</sup> Applied Ballistics objects to slide 37 of Horus Vision’s Markman presentation on the basis that  
22 “[t]he parties recently agreed that it would be inappropriate to submit information or material to  
23 the Court as evidence at the Markman hearing if it were not previously disclosed under the Patent  
24 Local Rules.” Defendants’ Objections to Plaintiff’s Claim Construction Tutorial, ECF 56. Slide 37  
relies on Claims 15 and 16 of the ’878 Patent, which were not included in the parties’ Joint Claim  
Construction and Prehearing Statement as intrinsic evidence in support of Horus Vision’s  
proposed construction of “intersects” and “intersection.” *Id.* This objection, based—at best—on  
a technicality, is overruled.

25 Slide 37 derives from Claims 15 and 16 of the '878 Patent, which is in evidence. Thus, nothing on  
26 slide 37 provides additional evidence previously unknown to Applied Ballistics. Furthermore, this  
27 court is bound by Federal Circuit precedent, under which "the court starts the decisionmaking  
28 process by reviewing . . . the patent specification and the prosecution history." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (quoting *Multiform Desiccants v. Medzam*, 133 F.3d 1473, 1477 (Fed. Cir. 1998)). Applied Ballistics has not identified, nor is the court aware of, any precedent  
suggesting that an agreement between the parties can relieve the court of this duty.

1 projectile at long range. The method claimed by the '878 Patent involves using such a computer  
2 program in conjunction with a special sighting device to aid in compensating for these various  
3 factors when aiming the firearm.

4 **II. AGREED CONSTRUCTIONS**

5 The meaning of the following terms were agreed upon prior to the parties' submission of a  
6 Joint Claim Construction and Prehearing Statement. Prehearing Statement at 2, ECF 43. The  
7 constructions being reasonable and mutually agreeable, the court construes the terms as proposed  
8 by the parties.

Term	Agreed Construction
"reticle"	a grid or pattern placed in the eyepiece of an optical instrument, used to establish scale or position
"aiming point"	a point on a reticle to aim at a target
two or more "evenly spaced" simultaneously visible straight line secondary horizontal cross-hairs	<p>"Evenly spaced" means spaced apart by an equal distance.</p> <p>In determining whether two or more secondary cross-hairs are "evenly spaced," the primary horizontal cross-hair may be taken into account.</p>
"ballistics computer program"	a computer program that calculates a solution for the trajectory of a projectile
"the relation of the shooter to the target"	information relating the shooter and the target in space, for example, the distance between the shooter and the target, the speed and direction of movement of the target relative to the shooter, or shooter relative to the target (such as where the shooter is in a moving vehicle), or direction from true North

1       On November 3, 2014, the parties filed a joint post-hearing claim construction submission,  
 2 agreeing to the meaning of the following terms. Joint Post-Markman Claim Construction  
 3 Submission (“Post-Markman Submission”) at 1-2, ECF 70. The constructions being reasonable  
 4 and mutually agreeable, the court construes the terms as proposed by the parties.

Term	Agreed Construction
“primary” <sup>2</sup>	<p>“Primary” horizontal and “primary” vertical cross-hairs are cross-hairs that intersect and indicate an aiming point for zeroing.</p> <p>The “primary” cross-hairs indicate an aiming point for zeroing in one or more of the following ways:</p> <ul style="list-style-type: none"> <li>• by providing a numbering scheme for other cross-hairs</li> <li>• by being prominently marked by virtue of being the longest or thickest cross-hairs on the reticle</li> <li>• by dividing the reticle into four quadrants around the point of intersection</li> </ul>
“vertical”	<p>“Vertical” means perpendicular or at an angle of between 45 and 90 degrees with reference to a horizontal cross-hair.</p>

### 19       **III. LEGAL STANDARD**

#### 20       **A. GENERAL PRINCIPLES**

21       It is a bedrock principle of patent law that the claims of a patent define the invention to which  
 22 the patentee is entitled the right to exclude. *Phillips v. AWH Corp*, 415 F.3d 1303, 1312 (Fed. Cir.  
 23 2005) (*en banc*). Because the patentee is required to define precisely what his invention is, it is  
 24 unjust to the public, as well as an evasion of the law, to construe it in a manner different from the  
 25 plain import of its terms. *Id.* Thus, in construing the claims of a patent, a disputed claim term is

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27       <sup>2</sup> Although the parties did not include in their submission a separate construction of the term  
 28 “secondary,” the court understands the parties to be in agreement that the proposed construction  
 of “primary” resolves any ambiguity in the meaning of the term “secondary,” thus mooting their  
 prior dispute as to its proper construction. *See* Post-Markman Submission at 2, ECF 70.

1 generally given “the meaning that the term would have to a person of ordinary skill in the art in  
2 question at the time of the invention” after having “read the claim term not only in the context of  
3 the particular claim in which the disputed term appears, but in the context of the entire patent,  
4 including the specification.” *Id.* at 1313.

5 In some cases, the ordinary meaning of claim language as understood by a person of skill in the  
6 art may be readily apparent even to lay judges, and claim construction in such cases involves little  
7 more than the application of the widely accepted meaning of commonly understood words. *Id.* at  
8 1314. In such circumstances, “[d]ictionaries or comparable sources are often useful to assist in  
9 understanding the commonly understood meaning of words,” *id.* at 1322, but should not be used in  
10 such a way as to “focus[] the inquiry on the abstract meaning of the words rather than on the  
11 meaning of claim terms within the context of the patent,” *id.* at 1321. In particular, in consulting  
12 dictionaries, courts must remain cognizant of and avoid certain shortcomings of these resources in  
13 discerning the meaning of patent claim terms.

14 First, there may be a disconnect between a patentee’s responsibility to describe and claim his  
15 invention and a dictionary editor’s objective of aggregating all possible definitions for particular  
16 words. *Id.* at 1321. An inventor is tasked with “setting forth his invention as a person of ordinary  
17 skill in that particular art would understand it.” *Id.* at 1322. In contrast, general dictionaries strive  
18 to collect all uses of particular words, many of which may not occur in the relevant field of art,  
19 thereby risking an undue expansion of the meaning of a claim’s scope if such definitions are  
20 indiscriminately applied. *Id.* at 1321.

21 Second, “different dictionaries may contain somewhat different sets of definitions for the same  
22 words.” *Id.* at 1322. The meaning of a claim term should not turn on “the preferences of a  
23 particular dictionary editor, or the court’s independent decision, uninformed by the specification,  
24 to rely on one dictionary rather than another.” *Phillips v. AWH*, 415 F.3d at 1322. Such subtle  
25 distinctions are often better resolved by reference to context and common sense than by the  
26 arbitrary choice between dictionaries.

27 However, recognizing these limitations, courts may still make reference to dictionaries and  
28 similar sources where helpful so long as “the court’s focus remains on understanding how a person

1 of ordinary skill in the art would understand the claim terms.” *Id.* at 1323. “The sequence of steps  
2 used by the judge in consulting various sources is not important; what matters is for the court to  
3 attach the appropriate weight to be assigned to those sources in light of the statutes and policies  
4 that inform patent law.” *Id.* at 1324.

5 While the words of a claim are generally given their ordinary and customary meaning, *id.* at  
6 1312, “the specification may reveal a special definition given to a claim term by the patentee that  
7 differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography  
8 governs.” *Id.* at 1316. Alternatively, the intrinsic record “may reveal an intentional disclaimer, or  
9 disavowal, of claim scope by the inventor. In that instance as well, the inventor has dictated the  
10 correct claim scope, and the inventor’s intention . . . is regarded as dispositive.” *Id.* at 1316. “To act  
11 as its own lexicographer, a patentee must clearly set forth a definition of the disputed claim term  
12 other than its plain and ordinary meaning.” *Thorner v. Sony Computer Entertainment America*, 669  
13 F.3d 1362, 1365 (Fed. Cir. 2012). “The standard for disavowal of claim scope is similarly exacting.”  
14 *Id.* at 1366. “Absent a clear disavowal in the specification or the prosecution history, the patentee is  
15 entitled to the full scope of its claim language.” *Home Diagnostics v. LifeScan*, 381 F.3d 1352, 1358  
16 (Fed. Cir. 2004).

17 **B. MEANS-PLUS-FUNCTION CLAIMS**

18 Paragraph 6 of 35 USC § 112 provides for means-plus-function claiming: “An element in a  
19 claim for a combination may be expressed as a means . . . for performing a specified function . . .  
20 and such claim shall be construed to cover the corresponding structure, material, or acts described  
21 in the specification and equivalents thereof.” When a claim uses the term “means” to describe a  
22 limitation, it creates a presumption that the inventor used the term to invoke § 112 ¶ 6. *Biomedino v.*  
23 *Waters Technologies*, 490 F.3d 946, 950 (Fed. Cir. 2007). The “presumption can be rebutted when  
24 the claim, in addition to the functional language, recites structure sufficient to perform the claimed  
25 function in its entirety.” *Id.*

26 If a court concludes that a claim limitation is a means-plus-function limitation, “two steps of  
27 claim construction remain: 1) the court must first identify the function of the limitation; and 2) the  
28 court must then look to the specification and identify the corresponding structure for that

1 function.” *Id.* The claim limitation will then be construed to cover that corresponding structure  
2 and equivalents thereof. 35 USC § 112 ¶ 6.

3 **C. INDEFINITENESS**

4 “The Patent Act requires that a patent specification conclude with one or more claims  
5 particularly pointing out and distinctly claiming the subject matter which the applicant regards as  
6 the invention.” *Nautilus v. Biosig Instruments*, 134 S. Ct. 2120, 2124 (2014). “A patent is invalid for  
7 indefiniteness if its claims, read in light of the specification delineating the patent, and the  
8 prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the  
9 scope of the invention.” *Id.* While the scope of the claims must be clear enough to “apprise the  
10 public of what is still open to them,” *Markman v. Westview Instruments*, 517 U.S. 370, 373 (1996),  
11 “the definiteness requirement must take into account the inherent limitations of language. Some  
12 modicum of uncertainty . . . is the price of ensuring the appropriate incentives for innovation.”  
13 *Nautilus*, 134 S. Ct. at 2128 (internal citations omitted). Thus, “the certainty which the law  
14 requires in patents is not greater than is reasonable, having regard to their subject-matter.” *Id.* at  
15 2129 (quoting *Minerals Separation v. Hyde*, 242 U.S. 261, 270 (1916)).

16 With respect to means-plus-function claims, “[i]f there is no structure in the specification  
17 corresponding to the means-plus-function limitation in the claims, the claim will be found invalid  
18 as indefinite.” *Biomedino*, 490 F.3d at 950. “Even if the specification discloses a ‘corresponding  
19 structure,’ the disclosure must be adequate; the patent’s specification must provide an adequate  
20 disclosure showing what is meant by that claim language. If an applicant fails to set forth an  
21 adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim  
22 the invention as required by the second paragraph of section 112.” *Noah Sys v. Intuit*, 675 F.3d 1302,  
23 1311-12 (Fed. Cir. 2012). Importantly, “interpretation of what is disclosed in the specification must  
24 be made in light of the knowledge of one skilled in the art. Thus, in order for a means-plus-function  
25 claim to be valid under § 112, the corresponding structure of the limitation must be disclosed in the  
26 written description in such a manner that one skilled in the art will know and understand what  
27 structure corresponds to the means limitation.” *Biomedino*, 490 F.3d at 950 (internal citations  
28 omitted).

1        Thus, “a means-plus-function clause is indefinite if a person of ordinary skill in the art would  
 2        be unable to recognize the structure in the specification and associate it with the corresponding  
 3        function in the claim.” *Noah Sys*, 675 F.3d at 1312. “The amount of detail that must be included in  
 4        the specification depends on the subject matter that is described and its role in the invention as a  
 5        whole, in view of the existing knowledge in the field of the invention.” *Typhoon Touch Techs v. Dell*,  
 6        659 F.3d 1376, 1385 (Fed. Cir. 2011). Because patents enjoy the presumption of validity, where  
 7        disputes arise as to the sufficiency of the specification’s disclosure of a structure corresponding to a  
 8        particular means-plus-function claim limitation, the defendant “bears the burden of proving that  
 9        an ordinary artisan would not understand the disclosure.” *Telcordia Technologies v. Cisco Sys*, 612  
 10       F.3d 1365, 1377 (Fed. Cir. 2010); *TecSec v. Int’l Bus Machines Corp*, 731 F.3d 1336, 1349 (Fed. Cir.  
 11       2013) (“The party alleging that the specification fails to disclose sufficient corresponding structure  
 12       must make that showing by clear and convincing evidence.”).

13       **IV. CONSTRUCTION OF DISPUTED TERMS**

14       **A. “PROVIDING”**

15       Plaintiff’s Proposal	16       Defendant’s Proposal	17       Court’s Construction
16       “making available (can involve 17       a single person—i.e., making 18       available to oneself)”	17       “another person supplies 18       something to, or makes 19       something available to, the 20       person performing the method 21       (the shooter)”	21       The provider and the recipient 22       can be the same person.

20       Neither party asserts that the ‘878 Patent’s use of the term “providing” departs from its plain  
 21       and ordinary meaning. Rather, the parties’ dispute is whether the plain meaning of the term  
 22       requires two separate and distinct people: a provider and a recipient. Plaintiff’s position is that the  
 23       provider and the recipient may be the same person; that is, a person may provide something to  
 24       herself. Defendant’s position is that the provider and the recipient must be two separate people.

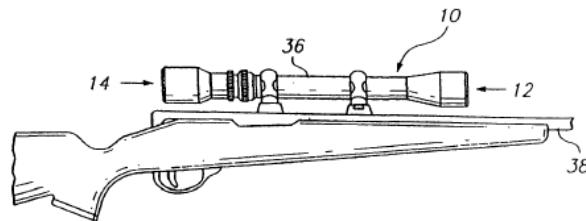
25       Applied Ballistics concedes in its response brief that this court is bound by precedent  
 26       supporting Plaintiff’s position. Defendant’s Response Brief at 4, ECF 45 at \*8. Accordingly, the

1 court adopts Plaintiff's construction: the provider and the recipient of a provision may be the same  
2 person.

3 **B. "A MEANS FOR MOUNTING SAID HOUSING IN A FIXED, PREDETERMINED  
4 POSITION RELATIVE TO THE FIREARM"**

5 Plaintiff's Proposal	6 Defendant's Proposal	7 Court's Construction
8 "a riflescope mount"	9 The term cannot be construed.	10 "the mounting structure 11 depicted in Figure 4 of the '878 12 Patent or an equivalent 13 thereof"

14 The parties agree that this claim term is in means-plus-function format. The parties also agree  
15 that the stated function is mounting the housing in a fixed, predetermined position relative to the  
16 firearm.<sup>3</sup> The parties disagree, however, on whether the specification discloses adequate structure  
17 corresponding to this function. Horus Vision argues that the patent drawings "clearly depict  
18 appropriate structure for mounting the target acquisition device to the firearm." Plaintiff's  
19 Opening Brief at 7, ECF 44 at \*12. Specifically, Horus Vision points to Figure 4 of the '878 Patent,  
20 "a partial side view of an example of a firearm showing a telescopic gunsight mounted on the  
21 barrel," '878 Patent at 9:24-25, as the specification's disclosure of a structure corresponding to the  
22 mounting function:



23 **FIG. 4**

24 Applied Ballistics counters that Figure 4 is "only an unlabeled drawing." Defendants'  
25 Opposition Brief at 5, ECF 45 at \*9. Applied Ballistics further contends that Figure 4 is inadequate,  
26 as it "does not disclose *any* specific structure . . . showing how the alleged 'means for mounting'  
27 are affixed to the rifle," *id.* at 6, ECF 45 at \*10, thus leaving the public to guess the exact scope of

28 <sup>3</sup> For the sake of brevity, the court will simply refer to "mounting" as shorthand for this function.

1 the term. Neither party offered expert testimony as to how one skilled in the art would view and  
2 understand the depiction of structure in the patent.

3 Thus, the parties dispute a) whether the structure depicted in Figure 4 has a clear enough link  
4 to the claimed function to qualify as a corresponding structure under § 112 ¶ 6; and b) assuming it  
5 is a corresponding structure, whether the structure depicted in Figure 4 is adequate to satisfy the  
6 definiteness requirement of § 112 ¶ 2.

7 As to the first question, “[a] structure disclosed in the specification qualifies as a  
8 ‘corresponding structure’ if the specification or the prosecution history clearly links or associates  
9 that structure to the function recited in the claim.” *Noah Sys v. Intuit*, 675 F.3d 1302, 1311 (Fed. Cir.  
10 2012). The specification provides that “[a]s exemplified in FIGS 1 and 4, a target acquisition  
11 telescopic gunsight 10 (also referred to herein as a ‘scope’) includes a housing 36 which can be  
12 mounted in fixed relationship with a gun barrel 38.” ’878 Patent at 16:43-46. Figure 4 clearly  
13 depicts a structure connecting the housing, labeled 36, to the firearm’s gun barrel, labeled 38.  
14 Because Figure 4’s description specifies that the telescopic gunsight is not merely connected to,  
15 but is “mounted on the barrel,” ’878 Patent at 9:24-25, the specification “clearly links or associates  
16 that structure to the function recited in the claim.” Thus, the structure depicted in Figure 4  
17 qualifies as corresponding structure under § 112 ¶ 6. Accordingly, the court construes the means-  
18 for-mounting claim term to cover the structure disclosed in Figure 4 and equivalents thereof. *See*  
19 § 112 ¶ 6.

20 Having found that the structure depicted in Figure 4 is a “corresponding structure,” the court  
21 continues to the second dispute—whether the structure in Figure 4 is sufficiently definite to meet  
22 the requirements of § 112 ¶ 2. “Even if the specification discloses a ‘corresponding structure,’ the  
23 disclosure must be adequate; the patent’s specification must provide an adequate disclosure  
24 showing what is meant by that claim language.” *Noah Sys*, 675 F.3d at 1311-12. The court certainly  
25 notes the sparseness of the disclosure and the patent’s lack of textual description or limitation  
26 beyond what can be seen in Figure 4. That being said, this court is bound by well settled principles  
27 of law regarding claims of indefiniteness, which dictate the outcome of this dispute at this stage of  
28 the proceedings.

1       First, patents are presumed valid and thus, Applied Ballistics bears the burden of proving that  
2 one skilled in the art would not understand the disclosure. 35 USC § 282; *Telcordia Technologies v.*  
3 *Cisco Systems*, 612 F.3d 1365, 1377 (Fed. Cir. 2010). Second, § 112 does not require the drafter to  
4 “encumber the specification” with information known to one skilled in the field of the invention.  
5 *Atmel Corp v. Information Storage Devices*, 198 F.3d 1374, 1382 (Fed. Cir. 1999). “The amount of  
6 detail that must be included in the specification depends on the subject matter that is described and  
7 its role in the invention as a whole, in view of the existing knowledge in the field of the invention.”  
8 *Typhoon Touch Techs v. Dell*, 659 F.3d 1376, 1385 (Fed. Cir. 2011). Because “claim definiteness  
9 depends on the skill level of an ordinary artisan . . . the specification need only disclose adequate  
10 defining structure to render the bounds of the claim understandable to an ordinary artisan.”  
11 *Telcordia*, 612 F.3d 1365, 1377.<sup>4</sup>

12       In order to prevail on its indefiniteness argument, Applied Ballistics must demonstrate that  
13 one skilled in the art would not understand the contours and limitations of the structure depicted  
14 in Figure 4. Absent any evidence on this point, Applied Ballistics’ claim of indefiniteness fails. The  
15 court recognizes that expert testimony is not always required to prove indefiniteness. For instance,  
16 expert testimony is not required to show indefiniteness where there is a “total absence of  
17 structure” in the specification. *Noah Sys*, 675 F.3d at 1312.

18       But here there is no total absence of structure. Rather, the court is faced with “a disclosure  
19 which addresses itself to an identifiable function, but arguably does so inadequately,” *id.* at 1319,  
20 “thereby requiring consideration of what one skilled in the art would understand from that  
21 disclosure, whether by way of expert testimony or otherwise,” *id.* at 1314. In the absence of any  
22 evidence on the matter, this lay court cannot determine, based on attorney argument alone,  
23 whether the mounting shown in Figure 4 “fail[s] to inform, with reasonable certainty, those skilled  
24 in the art about the scope of the invention.” *Nautilus v. Biosig Instruments*, 134 S. Ct. 2120, 2124  
25 (2014). Accordingly, the court rejects Defendants’ argument that the means-for-mounting term is  
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<sup>4</sup> Notably, in *Telcordia*, a controller’s circuit shown as a black box was not rendered indefinite where  
28 expert testimony demonstrated that an ordinary artisan would know how to interpret the  
specification.

1 indefinite, without prejudice to Defendants' reasserting the argument with appropriate evidence at  
 2 summary judgment or trial.

3 **C. "ETCHED/ENGRAVED/PRINTED"**

4 Plaintiff's Proposal	5 Defendant's Proposal	6 Court's Construction
5 "marked by etching, engraving, 6 or printing"	7 etch: "to produce a design on a hard material by eating into the surface (other than with a laser)"  8 engrave: "to form by incision or to cut figures, letters, or designs on (other than with a laser)"  9 incision: "cut"  10 print: "a mark made by pressure"	11 etch: "to produce(as a pattern or design) on a hard material by eating into the material's surface (as by acid or laser beam)"  12 engrave: "to form by cutting into"  13 print: "to impress something in or on;" or "to stamp (as a mark) in or on something"

14  
 15 Claim limitations 1(a)(5)(iii) and (iv) require that certain components of the reticle of 1(a)(5)  
 16 be "selected from the group consisting of etched cross-hairs, engraved cross-hairs, and printed  
 17 cross-hairs." '878 Patent at 50:46-48, 50:53-55. The parties dispute whether cross-hairs formed on  
 18 a reticle by a laser satisfy this requirement. While acknowledging the limitations of dictionaries as  
 19 sources for the meaning of patent language, the court concludes that a dictionary is an appropriate  
 20 place to begin resolving this dispute. Although these terms are commonly used words, such  
 21 nuances as the distinction between "etching" and "engraving" are not fully elucidated by reference  
 22 simply to their ordinary usage by laypersons. Similarly, reference to common usage does not fully  
 23 elucidate whether these terms are expansive enough to include operations performed by laser.  
 24 Since such nuances are relevant to resolving the parties' dispute, reference to a formal definition as  
 25 found in a dictionary is a helpful starting point. Because neither party has suggested that these  
 26 words carry special meaning in the relevant art, the court looks to a general purpose dictionary to  
 27 determine the ordinary meaning of these words.  
 28

1 Plaintiff has not provided a dictionary definition of these terms, but has not objected to the  
 2 dictionary definitions provided by Defendant, which the court accordingly adopts as its starting  
 3 point. These definitions come from *Merriam-Webster's Collegiate Dictionary* (Merriam-Webster  
 4 10th ed 1998<sup>5</sup>). Tyler Decl. at 2, ECF 47. According to this source:<sup>6</sup>

- 5 • “Etch” means “to produce(as a pattern or design) on a hard material by eating into the  
     6 material’s surface (as by acid or laser beam).” ECF 47-1 at \*7.
- 7 • “Engrave” means “to form by incision (as on wood or metal).”<sup>7</sup> ECF 47-1 at \*6.
  - 8     ○ “Incise” means “to cut into.” ECF 47-2 at \*1.
- 9 • “Print” means:
  - 10     ○ “to impress something in or on;” or
  - 11     ○ “to stamp (as a mark) in or on something.” ECF 47-2 at \*8.

12 This, however, does not end the court’s analysis. When the intrinsic record shows that a  
 13 patentee acted as his own lexicographer or specifically disavowed a particular claim scope, the  
 14 meaning given to a term by the patentee governs. Applied Ballistics argues that this is such an  
 15 instance. Specifically, Applied Ballistics argues that Horus Vision assigned a meaning to etching  
 16 and engraving that excluded burning by laser. *See* Defendants’ Response Brief at 10, ECF 45 at \*14.  
 17 In support of this proposition, Applied Ballistics points to a sentence in the specification, which  
 18 states: “A primary vertical cross-hair is provided on one side of said disc using conventional  
 19 methods such as, for example, etching, printing, engraved by machine or burned by laser, or

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20  
 21 <sup>5</sup> The court notes in passing that the dictionary from which the provided definitions are taken  
 22 appears to be the 1994 edition rather than the 1998. *See* ECF 47-1 at \*3. However, the parties have  
 23 not contested the source, nor has either party suggested that any difference in the editions would  
 24 be material to their dispute.

25 <sup>6</sup> Several definitions of each word are listed in the dictionary provided. Because the parties have not  
 26 argued the relative propriety of the various definitions, the court starts by noting that the first  
 27 definition of each word appears consistent with the word’s plain and ordinary meaning and also  
 28 appears consistent with and sensible in light of the word’s usage in the claims. The court  
 accordingly accepts these definitions as the starting point for its analysis. In the case of “print,” the  
 first two definitions appear to be slightly different. However, both appear to be consistent with the  
 word’s plain and ordinary usage and both appear to be consistent with and sensible in light of the  
 word’s usage in the claims. Accordingly, as a starting point for its analysis, the court accepts the  
 claim term as encompassing either or both definitions.

<sup>7</sup> Given that the claims presume engraving as a means of creating cross-hairs on a reticle, the court  
 does not construe engraving to be limited to operations performed on wood or metal, which—  
 being opaque—would not be suitable for use as a reticle material.

1 applying hairs or wires of known diameter.” ’878 Patent at 22:13-17. According to Applied  
2 Ballistics, in this sentence, “Horus assigned a meaning to etching and engraving that excluded  
3 burning by laser.” Defendant’s Response Brief at 10, ECF 45 at \*14.

4 Defendants’ argument requires one to infer special meaning from an oddly structured  
5 sentence, one which was most likely the result of a drafting mistake. The argument relies on  
6 “burn[ing] by laser” being an independent element, separate from “etching” and “engraving,” in a  
7 list of exemplary methods for providing cross-hairs. To interpret the sentence this way would  
8 render it syntactically incorrect.<sup>8</sup> But the court need not wade into grammatical obscurity to resolve  
9 this dispute. Ultimately, whether the sentence reflects a drafting error or not, this grammatically  
10 odd construction is not enough to overcome the strong presumption that patent terms carry their  
11 ordinary and customary meaning.

12 When faced with the contention that a patentee has acted as her own lexicographer or has  
13 disavowed the scope of a claim, courts normally look to an explicit statement that a claim term is  
14 being redefined or limited. *Thorner*, 669 F.3d at 1367 (“The patentee is free to choose a broad term  
15 and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly  
16 redefines the term or disavows its full scope.”). While it is true that, in certain circumstances, a  
17 redefinition or disavowal may be implicit, “the ‘implied’ redefinition must be so clear that it  
18 equates to an explicit one.” *Id.* at 1368. Referring to the disputed terms as examples of  
19 “conventional methods” does not express a clear intent to depart from the customary meaning of  
20 those terms. ’878 Patent at 22:15.

21  
22

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23 <sup>8</sup> The first two elements in the list of methods are “etching” and “printing,” which are gerunds,  
24 verbs in their present participle form functioning as nouns. The grammatical principle of parallel  
25 construction dictates that the rest of the elements in the list also be gerunds. *See The Chicago*  
26 *Manual of Style* § 6.121 at 344 (Chicago 16th ed 2010) (“All items in a list should be constructed of  
27 parallel elements.”); *id.* § 5.212 at 259 (“Every element of a parallel series must be a functional  
28 match of the others (word, phrase, clause, sentence) and serve the same grammatical function in  
the sentence (e.g., noun, verb, adjective, adverb). When linked items are not like items, the syntax  
of the sentence breaks down.”). The words “engraved” and “burned,” which Defendants’ reading  
would place in the list alongside “etching,” are not gerunds, in fact are not in the present participle  
form at all—they are past participles. To place them as coequal elements alongside “etching” and  
“printing” would violate parallel construction and render the sentence ungrammatical.

The court is especially cognizant that many patentees may choose to unnecessarily list examples and alternative embodiments in order to foreclose any argument that excluding those embodiments from the specification similarly excludes them from the scope of the patent claims. While the court is not eager to encourage such unnecessary redundancies, the court is even less willing to transform specification language that was likely intended to preserve a broad claim scope into an unintended implicit limitation on claim scope instead.

Because the patentee has not expressed a clear intent to redefine these claim terms or disavow laser-made cross-hairs from the scope of these claim terms, the court concludes that Horus Vision is entitled to the full scope of the plain and ordinary meaning of the terms “etched,” “engraved,” and “printed.”

**D. "LEAD MARKINGS INDICATING RATE OF MOVEMENT"**

Plaintiff's Proposal	Defendant's Proposal	Court's Construction
<p>“two or more markings on a reticle that allow for assessment of rate of movement of a target along a cross-hair; lead markings can be secondary cross-hairs”</p>	<p>Cannot be construed.</p>	<p>Unconstrued pending sufficient evidence</p>

The parties dispute what a person of ordinary skill in the art would understand “lead markings indicating a rate of movement” to mean, and further, whether a person of ordinary skill in the art would understand the term to have any definite meaning. However, neither party has put forth any evidence of whether the term “lead markings” was a term known in the art at the time the patent was filed. It may well be that any markings indicating a rate of movement are referred to as “lead markings” by those of ordinary skill in the art. It may also be that one of ordinary skill in the art understands secondary cross-hairs to indicate a rate of movement when interpreted correctly for that purpose. But the court has been presented with no evidence to make a determination one way or the other. The only evidence before the court comprises citations to the specification giving examples of lead markings, which appear—at least to the court, admittedly not a skilled artisan in the field of the '878 Patent—to be identical to secondary cross-hairs. However, without some

1 evidence of the knowledge of a person of ordinary skill in the art, this is insufficient to properly  
 2 construe the term. The court has not been presented with sufficient evidence to conclude that the  
 3 term is indefinite, nor has the court been presented with sufficient evidence to properly construe  
 4 the term. Accordingly, the court leaves the term without construction pending adequate evidence  
 5 upon which to determine the scope of the claim limitation.

6 **E. “INTERSECTS/INTERSECTION”**

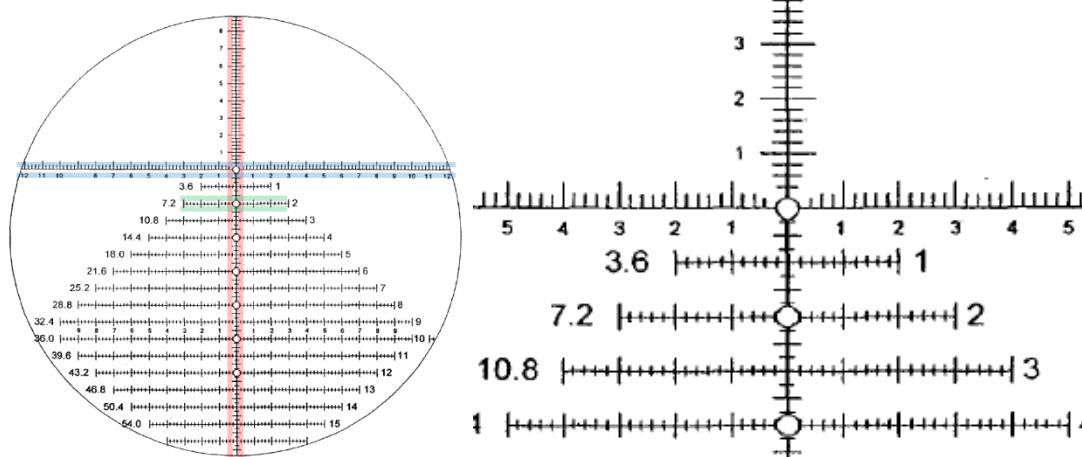
7 Plaintiff’s Proposal	8 Defendant’s Proposal	9 Court’s Construction
8 “meets and crosses at a point” 9 such point may be a geometric 10 shape (for example, a circle, square, cross, or diamond) and 11 may be solid or hollow or indicated by interrupted lines <sup>9</sup>	9 “meets and crosses at a point”	10 “intersects” and 11 “intersection” have their common and well-understood meaning.  12 The intersection of cross-hairs 13 need not be visibly depicted, 14 but may instead be inferred 15 from context, as in Figure 32.  16 Cross-hairs are not infinite 17 lines; they have endpoints. Any 18 intersection of cross-hairs must 19 occur between these 20 endpoints.

21 Claim 1 of the ’878 Patent includes limitations that the primary vertical cross-hair “intersects”  
 22 the primary horizontal cross-hair, Claim 1(a)(5)(ii), and that the “intersection” of certain cross-  
 23 hairs provides an aiming point, Claim 1(a)(5)(iv). Both parties agree that the term “intersects”  
 24 means “meets and crosses at a point.” The dispute between the parties regards whether this point  
 25 where two cross-hairs intersect must be visibly depicted or may instead be inferred from the  
 26 surrounding context.

27 <sup>9</sup> This modified proposal was submitted on November 3, 2014, in response to concerns expressed  
 28 by the court at the claim construction hearing that the original proposed term was too broad. Post-  
 Markman Submission at 2, ECF 70.

1 To clarify with an example, Figure 32 of the '878 Patent is shown below with relevant cross-  
2 hairs highlighted in color for reference, along with an enlarged version of the relevant portion:  
3

FIG. 32

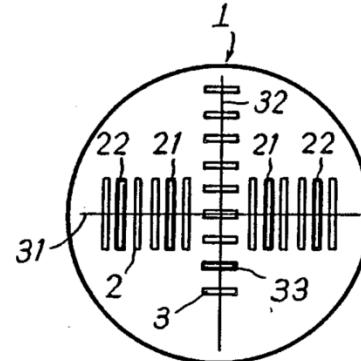


4  
5 Both parties agree that the secondary horizontal cross-hair labeled "1" intersects the primary  
6 vertical cross-hair (red). But the parties dispute whether the primary vertical cross-hair intersects  
7 the primary horizontal cross-hair (blue) and whether the secondary horizontal cross-hair labeled  
8 "2" (green) intersects the primary vertical cross-hair. The basis of this dispute is the fact that the  
9 area immediately surrounding the actual point of intersection of these cross-hairs has been left  
10 empty, presumably to allow better sighting of the target through the reticle. Because this area has  
11 been left empty, any intersection between the primary vertical and primary horizontal cross-hairs  
12 must be inferred from context since it is not directly depicted.  
13  
14

15 Figure 32 depicts "a front view of a reticle of the present invention." '878 Patent at 11:14-15.  
16 Claim 1 of the '878 Patent—on which all other claims of the patent are dependent—requires that  
17 the primary vertical cross-hair of the reticle intersect the primary horizontal cross-hair of the  
18 reticle. Claim 1(a)(5)(ii). But any interpretation of "intersects" that would not be met by the  
19 primary vertical and primary horizontal cross-hairs in Figure 32 would exclude this embodiment  
20 from the scope of the patent claims. "A claim construction that excludes the preferred embodiment  
21 is rarely, if ever correct and would require highly persuasive evidentiary support." *NeoMagic Corp v.*  
22 *Trident Microsystems*, 287 F.3d 1062, 1074 (Fed. Cir. 2002).  
23  
24

25 In support of its position, Applied Ballistics points to Horus Vision's response to an initial  
26 rejection by the Patent Office. The rejection was based on perceived anticipation by US Patent No  
27  
28

1 4,671,165 (the “Heidmann” reference). Response to Office Action at 9, ECF 47-5 at \*10. The  
2 reticle of the Heidmann reference is shown below. Heidmann Figure 2 at 2, ECF 47-4 at \*4.



9 In response to this action, Horus Vision argued that “Heidmann does not teach or suggest  
10 secondary vertical cross-hairs that intersect secondary horizontal cross-hairs. An intersection is ‘A  
11 place where two or more things intersect.’ Accordingly, ‘intersect’ means ‘to meet and cross at a  
12 point.’ Heidmann’s lines merely stop at right angles to one another. Heidmann’s lines do not cross  
13 one another . . . . Accordingly, Heidmann does not teach or suggest the ballistics calculator system  
14 of the present application.” Response to Office Action at 10, ECF 47-5 at \*11 (internal citations  
15 omitted).

16 According to Applied Ballistics, this response disclaims any scope of the term “intersects”  
17 that does not depict the actual point of intersection between two cross-hairs. The court disagrees.  
18 Horus Vision’s response to the office action does not indicate that the intersection of two cross-  
19 hairs must be depicted and cannot be inferred from context. Rather, it observes that the context in  
20 the Heidmann reference dictates that the lines do not intersect, because they “stop at right angles  
21 to one another.” *Id.* This is very different from the depiction in Figure 32 of the ’878 Patent, in  
22 which it is clear that the view of a single pair of cross-hairs has been interrupted by an area of the  
23 reticle that has been left intentionally empty.

24 To treat this figure as analogous to the Heidmann reference would require the inference that  
25 the primary horizontal and primary vertical cross-hairs “stop” before intersecting, which would  
26 mean there are actually two primary vertical cross-hairs—one above and one below the circle—and  
27 two primary horizontal cross-hairs—one to the left and one to the right of the circle. Such an  
28

1 interpretation would make little sense and is contrary to the clearly intended interpretation of  
2 Figure 32, which is of a single primary vertical cross-hair and a single primary horizontal cross-hair,  
3 the intersection of which is not visibly depicted but cannot reasonably be questioned. The court  
4 therefore finds that the intersection of two cross-hairs may be inferred from the surrounding  
5 context, even if the exact point of their intersection is not visibly depicted.

6 This, however, does not fully resolve the dispute between the parties. Applied Ballistics'  
7 further concern is that Horus Vision's proposed construction<sup>10</sup> might cover non-intersecting cross-  
8 hairs that would intersect if extended past their endpoints. *See, e.g.*, Joint Post-Markman Claim  
9 Construction Submission at 4, ECF 70 ("Claim 1, however, requires cross-hairs that *do* intersect,  
10 not that *would* intersect *if extended*." (emphasis in original)). The court agrees with Applied  
11 Ballistics that Claim 1, read in light of the prosecution history, requires that any intersection  
12 between two cross-hairs occur between the endpoints of the cross-hairs. Any broader reading of  
13 "intersects" was disclaimed by Horus Vision during the patent's prosecution history.

14 However, the court does not understand Horus Vision to be proposing such a broad definition.  
15 Indeed, Horus Vision concurred during the claim construction hearing that cross-hairs do *not*  
16 extend indefinitely. Claim Construction Transcript at 102:3-7, ECF 65 (The Court: "I asked if,  
17 when I saw a dash[ed] line[,] was that a representation of an unbroken line or was each segment  
18 that I could see a separate line? And I believe I was told each small segment was its own line." Mr.  
19 Knauss: "Your honor, that's correct."); *Id.* at 103:9-16 (Mr. Knauss: "Now as to your honor's  
20 question about the vertical cross-hairs that are small, that's really germane to this issue because  
21 cross-hairs have ends and they end where those gaps are shown, and that's all explained in the  
22 specification and in the figures. And that's where the Heidmann reference which came up in  
23 prosecution doesn't have an intersection, because to make those lines intersect, rather than closing  
24 gaps in the center, we have to draw the lines out to infinity."). Accordingly, the court does not  
25 understand Horus Vision to be proposing that cross-hairs may intersect other cross-hairs beyond  
26 their endpoints. Rather, Horus Vision is merely pointing out that the intersection of two cross-hairs

27  
28 <sup>10</sup> Rather, since the parties purport to agree on a definition for "intersects," it is Horus Vision's  
construction of the agreed construction that is in dispute.

1 between their endpoints may be inferred from context—that is, by “closing the gaps in the center.”  
2 Applied Ballistics argues, however, that Horus Vision’s proposed clarifying language is broader  
3 than this, and would allow such extension of the cross-hairs beyond their endpoints.

4 This is a rather odd dispute. The parties appear to agree on the scope of the claim term. They  
5 even appear to agree on the same definition for the claim term. They disagree, however, on  
6 whether that agreed definition adequately captures the original term’s scope on its own or requires  
7 further clarifying language. The claim term at issue—“intersection”—is a commonly used word  
8 with a widely understood meaning and neither party has suggested it carries any special meaning to  
9 the skilled artisan. The court is therefore hard-pressed to identify any advantage to replacing the  
10 claim term with a definition paraphrasing the term, which appears to be more hotly contested than  
11 the scope of the claim term itself.

12 “When the parties present a fundamental dispute regarding the scope of a claim term, it is the  
13 court’s duty to resolve it.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362  
14 (Fed. Cir. 2008). However, claim construction “is not an obligatory exercise in redundancy.” *US*  
15 *Surgical Corp v. Ethicon*, 103 F.3d 1554, 1568 (Fed. Cir. 1997). Here, the parties’ dispute as to the  
16 scope of the terms “intersects” and “intersection” is more readily resolved than the parties’  
17 dispute as to the scope of the dictionary definition they purport to agree on. Accordingly, to avoid  
18 an “obligatory exercise in redundancy,” the court adopts the plain and well-understood meaning of  
19 “intersects” and “intersection,” with the following clarifications to resolve the parties’ dispute as  
20 to the scope of the term:

- 21 • The intersection of cross-hairs need not be visibly depicted, but may instead be  
22 inferred from context, as in Figure 32.
- 23 • Cross-hairs are not infinite lines; they have endpoints. Any intersection of cross-hairs  
24 must occur between these endpoints.

**F. USING "SAID TARGETING INFORMATION" DISPLAYED BY SAID BALLISTICS CALCULATOR SYSTEM TO AIM SAID FIREARM SO AS TO HIT SAID TARGET**

Plaintiff's Proposal	Defendant's Proposal	Court's Construction
“targeting information”	Indefinite.	“targeting information”

Claim limitation 1(d) requires “using said targeting information displayed by said ballistics calculator system . . . .” Applied Ballistics argues that, because there is no prior use of the phrase “targeting information” in the claim, there is no antecedent to which “said targeting information” refers, thus rendering the bounds of the claim indefinite because “the person of ordinary skill in the art has no clue what ‘targeting information’ is being referenced.” Defendant’s Response Brief at 14, ECF 45 at \*18. The court disagrees. Had the word “said” simply been omitted, the meaning of the claim term would be clear. It would refer to the targeting information that—as is made clear by the rest of the phrase—is displayed by the ballistics calculator system. Applied Ballistics’ implication that further clarification would nonetheless be necessary is both unconvincing and unsupported by any evidence. An advocate’s feigned confusion by clear language does not render the language unclear.<sup>11</sup>

The question then becomes whether the inclusion of the word “said” renders the claim indefinite where it would otherwise have a clear meaning. The court concludes that it does not. An antecedent basis can be present by implication. *Cross Med Products v. Medtronic Sofamor Danek*, 424 F.3d 1293, 1319 (Fed. Cir. 2005); *Slimfold Mfg v. Kinkead*, 810 F.2d 1113, 1117 (Fed. Cir. 1987). The context of the claim itself is enough to imply the antecedent basis for this claim term—it is the “targeting information displayed by said ballistics calculator system.” To the extent further clarifying information is needed, the specification provides more than enough. It provides that a “ballistics calculator system . . . refers to a targeting system . . . which provides the shooter a solution for the trajectory of a projectile.” ’878 Patent at 16:39–42. The specification also states that

<sup>11</sup> Cf. Antonin Scalia and Bryan A. Garner, *Reading Law: The Interpretation of Legal Texts* § 1 The Interpretation Principle (Thomson West 2012) (“You might be tempted to say, ‘If the language were plain and unambiguous, we wouldn’t be arguing about it, would we?’ Banish the thought: Lawyers argue about plain and unambiguous language all the time. That is their job: to inject doubt when it is in their clients’ interest.”).

1 a ballistics calculator can “identify a single firing solutions [sic] for a given target.” *Id.* at 28:32-38.  
 2 While the claim language alone is sufficient to render the bounds of this claim limitation definite,  
 3 any possible lingering ambiguity is eliminated by the specification, which teaches that the ballistics  
 4 calculator system displays targeting information.

5 **G. USING SAID TARGETING INFORMATION DISPLAYED BY “SAID BALLISTICS**  
 6 **CALCULATOR SYSTEM” TO AIM SAID FIREARM SO AS TO HIT SAID**  
**TARGET**

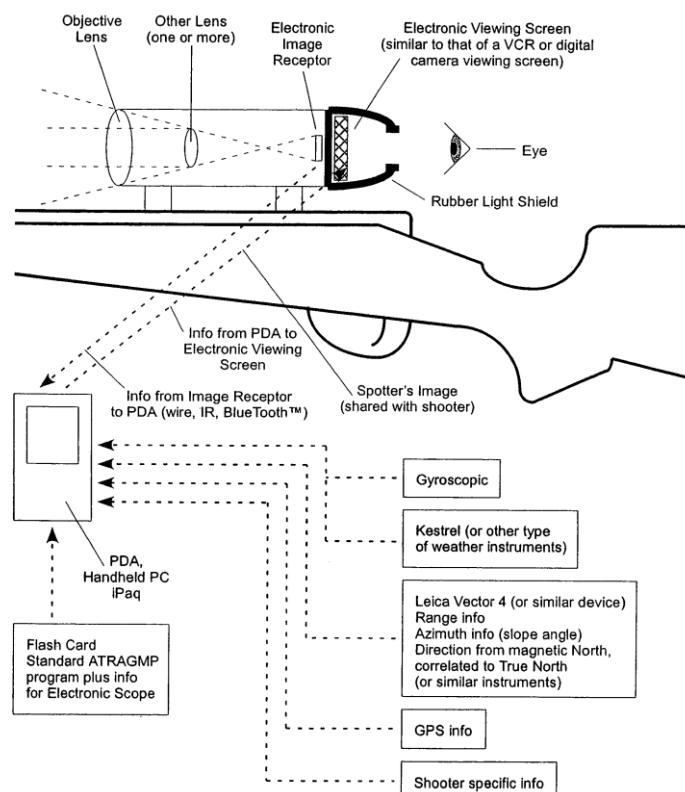
7 Plaintiff’s Proposal	Defendant’s Proposal	Court’s Construction
8 “the ballistics calculator”	9 “a personal computer, monitor 10 and printer, firearm and cartridge, scope and reticle, and at least two of the 11 following peripheral devices: laser rangefinders, weather monitoring devices, and global positioning systems”	12 “the ballistics calculator and its associated devices”

13  
 14 Claim limitation 1(d) requires that the targeting information used to aim the firearm be the  
 15 information displayed by “said ballistics calculator system.” Horus Vision’s construction would  
 16 equate “said ballistics calculator system” with the “ballistics calculator” of limitation 1(b). Applied  
 17 Ballistics’ construction would equate “said ballistics calculator system” with some sort of cross  
 18 between a standard office workstation and a rifle. The term “ballistics calculator system” is used  
 19 several times in the intrinsic record. Applied Ballistics argues that, to the extent these uses conflict  
 20 with each other, the public notice function of patents dictates that the narrowest meaning should  
 21 control. The court need not reach this issue, however, because it concludes that the various uses of  
 22 the term “ballistics calculator system” are not in conflict.

1 The '878 Patent explicitly defines ballistics calculator system: "As used herein, the term  
2 'ballistics calculator system' as exemplified in FIG. 42 refers to a targeting system that may be, for  
3 example, analog or digital, which provides the shooter a solution for the trajectory of a projectile."  
4 '878 Patent at 16:39-43. Figure 42 is shown below.

FIG. 42

## Overview



20 This figure is consistent with the language of Claim 1. The ballistics calculator of claim  
21 limitation 1(b) must “us[e] information regarding one or more of: 1) external conditions; 2) the  
22 firearm being used; 3) the projectile being used; 4) the target acquisition device and reticle being  
23 used; 5) the shooter; 6) the relation of the shooter and the target . . . ; and 7) the ballistics drag  
24 model and ballistic coefficient being used.” ’878 Patent at 51:2-13. Figure 42 clearly indicates that  
25 various information relating to these factors is being supplied to the ballistics calculator.

1 It is also made clear throughout the specification that peripheral devices may be used to  
2 facilitate the input of information required by the ballistics calculator program. The specification  
3 describes some of the various ways this information may be supplied to the ballistics calculator:

4 In one embodiment, data is entered into the system using any  
5 conventional input device linked to the system, such as a  
6 keyboard.... In a further embodiment, a voice recognition system  
7 using a microphone ... is used to input data.... In a preferred  
8 embodiment, instruments for data input, for example the Kestrel  
9 handheld device or similar handheld, laptop or desktop device,  
handheld global positioning system (GPS) or similar device, Leica  
Vector rangefinder or similar device, and the like, are integrated with  
the computing device in such a way as to allow input data items to be  
made available to the ballistic program.  
'878 Patent at 29:16-30.

10 The specification presumes that some type of input device or devices will be used to make  
11 information available to the ballistics calculator, but explicitly provides that “[t]he calculator and or  
12 any of the other associated devices may be provided in any form, including, but not limited to,  
13 computer, handheld device, traditional calculator, wristwatch, gun, visor, phone, video monitor,  
14 etc.” '878 Patent at 29:36-39.

15 In another passage cited by Applied Ballistics, the specification points out that “[i]n  
16 comparison to manual calibration of the target acquisition device, it is easier, and therefore  
17 preferable to use a ballistics calculator programs [sic] of the present invention ... to calculate  
18 accurate values for the cross-hairs and all secondary lines of the reticle of the present invention or,  
19 for example, to identify a single firing solutions [sic] for a given target, using a personal computer,  
20 monitor and printer, firearm and cartridge, scope and reticle, and peripheral devices (for example,  
21 laser rangefinders, weather monitoring devices, global positioning systems, etc.), the combination  
22 of which is hereinafter refer [sic] to as a ‘ballistics calculator system.’” '878 Patent at 28:24-38.  
23 This passage also purports to set forth the meaning of the term “ballistics calculator system.” The  
24 question, then, reduces to whether it is reasonable to interpret the phrase “the combination of  
25 which” as referring specifically and exclusively to the items listed, as opposed to referring generally  
26 to the ballistics calculator and its associated devices, with the preceding list being simply exemplary  
27 of potential components.

1       The court concludes that it would not be reasonable to read the phrase “the combination of  
 2 which” as referring specifically and exclusively to the items enumerated. While the term “ballistics  
 3 calculator system” is used throughout the patent to refer to the ballistics calculator and its  
 4 associated devices, the passage cited by Applied Ballistics is the only place where this long  
 5 enumeration appears. Furthermore, the fact that various components listed in this passage are  
 6 elsewhere specified as optional, *see, e.g.*, '878 Patent at 29:13-39, clarifies that “the combination of  
 7 which” is intended to include whichever components are used in conjunction with the ballistics  
 8 calculator, and that the components listed in the passage are merely examples of potential  
 9 components to be used in combination with the ballistics calculator. The comical image of a would-  
 10 be shooter attempting to drag into the field an elaborate apparatus like that described in the cited  
 11 passage provides only further common-sense confirmation that no such interpretation of the  
 12 phrase “ballistics calculator system” could possibly be intended.

13       Accordingly, the court construes the term “ballistics calculator system” to refer to the  
 14 ballistics calculator and its associated devices. *See, e.g.*, '878 Patent at 29:36-37 (referring to “[t]he  
 15 ballistics calculator and . . . any of the other associated devices”). Although these associated  
 16 devices may include those listed in the passage cited by Applied Ballistics, the patent does not  
 17 require all of them all the time.

18       **H.       “**A METHOD FOR SHOOTING A TARGET” / USING SAID TARGETING  
 19 INFORMATION DISPLAYED BY SAID BALLISTICS CALCULATOR SYSTEM TO  
 AIM SAID FIREARM “SO AS TO HIT SAID TARGET”****

20	Plaintiff’s Proposal	Defendant’s Proposal	Court’s Construction
21	[Actually hitting the target is not a limitation of the claim.]	[Actually hitting the target is a limitation of the claim.]  “So” means with the result. “As” means for the reason.	Hitting the target is not a limitation of the claim.

25       The parties dispute whether Claim 1 of the '878 Patent requires that the target actually be hit  
 26 as one of its limitations. In support of its interpretation that the claim requires hitting the target,  
 27

1 Applied Ballistics points to language in the claim's preamble ("A method for shooting a target")  
2 and to language in limitation (d) of the claim ("aim said firearm so as to hit said target").

3 **1. "A METHOD FOR SHOOTING A TARGET"**

4 "Whether to treat a preamble as a limitation is a determination resolved only on review of the  
5 entire patent to gain an understanding of what the inventors actually invented and intended to  
6 encompass by the claim." *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed.  
7 Cir. 2002) (internal citations omitted). "If the body of the claim sets out the complete invention,  
8 the preamble is not ordinarily treated as limiting the scope of the claim. However, the preamble is  
9 regarded as limiting if it recites essential structure that is important to the invention or necessary to  
10 give meaning to the claim." *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006)  
11 (internal citations omitted). "Moreover, when the limitations in the body of the claim rely upon  
12 and derive antecedent basis from the preamble, then the preamble may act as a necessary  
13 component of the claimed invention." *Id.* However, a preamble is generally not limiting when the  
14 patentee "uses the preamble only to state a purpose or intended use for the invention." *Catalina*  
15 *Mktg.*, 289 F.3d at 808.

16 The claim at issue requires that the firearm be aimed "so as to hit *said* target." '878 Patent at  
17 Claim 1(d) (emphasis added). The antecedent of "said target" appears to be "the target" of  
18 limitation (c) of claim 1. The use of the definite article in limitation (c) suggests that "the target"  
19 also has an antecedent referent. The most reasonable interpretation is that "the target" in  
20 limitation (c) refers to the target mentioned in the preamble. Because the claim term "target" relies  
21 upon and derives antecedent basis from the preamble, the court finds the preamble limiting insofar  
22 as it requires the presence of a definite target and provides an antecedent basis for the claim term  
23 "said target."

24 However, this does not resolve the issue of whether the preamble further limits the scope of  
25 the claim by requiring that the target actually be hit. This depends on "what the inventors actually  
26 invented and intended to encompass by the claim," so the court must decide whether the inventors  
27 intended the claimed method to be limited to instances in which the target is actually hit. This is  
28 essentially the same question as presented by the parties' dispute over the proper construction of

1 the phrase “so as to hit said target” in limitation (d) of claim 1. Accordingly, the court now turns to  
2 that dispute.

3 **2. “SO AS TO HIT SAID TARGET”**

4 Limitation (d) of claim 1 requires “using said targeting information displayed by said ballistics  
5 calculator system to aim said firearm *so as to hit said target.*” ’878 Patent at Claim Limitation 1(d)  
6 (emphasis added). Applied Ballistics argues that the final part of this phrase, “so as to hit said  
7 target,” requires that the target actually be hit. Horus Vision responds that the concluding language  
8 of the claim serves only to indicate the intended result of performing the method, but does not  
9 express an independent required step of the method.

10 As an initial matter, the court does not find Defendants’ submission of dictionary definitions  
11 for “so” and “as” helpful, and so does not rely on them for its analysis. Dictionary definitions were  
12 useful starting points for construing the terms “etched,” “engraved,” and “printed,” as discussed  
13 above. In contrast, the parties’ dispute here—whether the phrase “so as” necessarily entails “with  
14 the result”—does not implicate uses falling outside the experience of any native speaker of  
15 English.

16 The parties appear to be in agreement that the phrase “so as” specifies at least the intention  
17 with which an action is performed. The initial question for the court is whether, in certain contexts,  
18 the phrase is broad enough to include uses in which that intention is frustrated. An example is  
19 sufficient to answer this question: “The law student studied hard so as to get a good grade, but his  
20 efforts were in vain.” If the phrase “so as” necessarily implied “with the result,” the preceding  
21 sentence would be nonsensical, since the last clause makes clear that the student’s goal of attaining  
22 a good grade was unfulfilled. Since the phrase, depending on context, need not necessarily entail  
23 that an action was successful in bringing about its intended result, the next question for the court is  
24 whether such an interpretation is proper in the context of Claim 1 of the ’878 Patent, considering  
25 “what the inventors actually invented and intended to encompass by the claim.” *Catalina Mktg,*  
26 289 F.3d at 808.

1       In answering this question, an ounce of common sense may be worth a pound of legal  
2 argument.<sup>12</sup> The counter-intuitiveness of Defendants' position becomes readily apparent when  
3 considering a simple example: a target that changes speed or direction immediately after the  
4 firearm is discharged. As the specification makes clear, an unexpected change in the speed or  
5 direction of a target immediately after the firearm's discharge could cause the target not to be hit.  
6 '878 Patent 33:38-43 (noting that the ballistics calculator can use the target's direction and speed  
7 "to calculate a lead adjustment in the aiming point . . . so as to discharge the bullet towards the  
8 place where the target will be when the bullet arrives (assuming the target does not unexpectedly  
9 change direction or speed)."). Under Defendant's interpretation of Claim 1—which requires the  
10 target be hit—even after an individual has discharged the firearm, whether the individual has  
11 actually performed the method depends on whether the target unexpectedly changes speed or  
12 direction. Under Plaintiff's interpretation, irrespective of what the target does after the firearm is  
13 discharged, the method has been performed. Faced with these two competing interpretations of a  
14 method for shooting a target, the court is inclined to adopt the interpretation that does not require  
15 the target's cooperation in performing the method.

16       The court therefore concludes that actually hitting the target is not a limitation of claim 1, but  
17 rather a statement of the intended result of performing the method of claim 1.

18       **V. ORDER**

19       For the foregoing reasons, the disputed patent terms are construed as set forth in  
20 Appendix A.

21  
22       Dated: December 9, 2014

  
23       BETH LABSON FREEMAN  
24       United States District Judge

25  
26  
27  
28       <sup>12</sup> It may be noted that reference to the dictionary definitions of "ounce" and "pound" are of little  
      help in understanding this sentence's meaning.